

**COUNTY OF FRESNO**  
**GENERAL PLAN UPDATE PROGRAM**

**ECONOMIC AND GROWTH ALLOCATION**  
**AND**  
**METHODOLOGY REPORT**



DATE: February 23, 1999

TO: Board of Supervisors

FROM: William H. Randolph, County Administrative Officer  
County Administrative Office

Carolina Jimenez-Hogg, Director  
Public Works & Development Services Department

*Carolina Jimenez Hogg*

SUBJECT: GENERAL PLAN UPDATE PROGRAM: ACCEPTANCE OF ECONOMIC  
AND GROWTH ALLOCATION AND METHODOLOGY REPORT

RECOMMENDED ACTION:

Accept attached Economic and Growth Allocation and Methodology Report as a general guide for the expected level and distribution of future population and economic growth for use in drafting General Plan policies and the land use diagram and in preparing the General Plan EIR in Phase 2 of the General Plan Update program. (The Report was previously sent as Advanced Agenda Material.)

FISCAL POLICY:

On November 5, 1996, your Board approved an Agreement with Mintier & Associates for the preparation of the Fresno County General Plan Update Program. The Board's action included an allocation of funds from the General Fund Budget Unit 4360/0300 to prepare the General Plan Update.

Acceptance of the Economic and Growth Allocation Report will not have any direct fiscal impacts on the County.

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ADMINISTRATIVE OFFICE REVIEW \_\_\_\_\_ Page \_\_\_\_\_ of \_\_\_\_\_  
BOARD ACTION: DATE \_\_\_\_\_ APPROVED AS RECOMMENDED \_\_\_\_\_ OTHER \_\_\_\_\_

UNANIMOUS \_\_\_\_\_ ARAMBULA \_\_\_\_\_ CASE \_\_\_\_\_ KOLIGIAN \_\_\_\_\_ LEVY \_\_\_\_\_ OKEN \_\_\_\_\_

### BACKGROUND

At its July 28, 1998, hearing, the Board of Supervisors provided direction to County Staff and the General Plan Consultants regarding the Preferred Economic and Growth Scenario to be pursued in the preparation of the Economic Development Strategy and the General Plan Update. The Preferred Scenario is a combination of Economic Scenarios B/C (Shifts in Agricultural Production/Value-Added Agriculture) and D (Non-Agricultural Basic Employment).

Since the Board's direction in July 1998, County Staff and the General Plan Consultants have worked with the city planning directors of Fresno County, and the staff of the Council of Fresno County Governments and the Local Agency Formation Commission (LAFCO) through a series of monthly meetings to develop a statistical description of the "Preferred Scenario." In developing this description, the Consultants used a slightly revised version of the methodology they used to prepare the Economic and Growth Scenarios report in the Spring of 1998.

In the development of the statistical description of the Preferred Scenario, there was extensive discussion of both the countywide population and employment projections for 2020 and the distribution of projected growth among the cities and the various unincorporated geographic areas of the county.

After the second draft of the allocation report was prepared in November, the California Department of Finance (DOF) released a new set of statewide population projections that lowered the estimated population in Fresno County in 2020 from roughly 1.5 million to 1.1 million, a 54 percent reduction in population growth. After further discussion with DOF Staff and among County Staff, the Consultants, and city planning directors, the Consultants revised the allocation report based on the new DOF figures.

### DISCUSSION

The Economic and Growth Allocation and Methodology report projects future population and job growth countywide through the year 2020, allocates this population and job growth among the county's 15 incorporated cities and five unincorporated geographic sectors of the county, and translates the population growth into demand for residential land and the employment growth into demand for non-residential land.

This economic and growth allocation will be used as a general guide for the expected level and distribution of growth to assist the County Staff, General Plan Consultants, and other update participants in drafting General Plan policies and the land use

diagram, and in preparing the General Plan EIR in Phase 2 of the General Plan Update.

Consistent with existing County policy and the recommendations of the *Landscape of Choice* report, the growth distribution component of the allocation directs approximately 93 percent of new population and new jobs to incorporated cities.

As stated above, the Economic and Growth Allocation and Methodology report that is recommended for adoption has been revised extensively based upon dialogues with the cities and other agencies, new population projections from the DOF, and policy direction from your Board with respect to the preferred combined economic scenario and conformance with the *Landscape of Choice* document. Some of the process participants still maintain the 2020 DOF projections for Fresno County are too conservative. Likewise, some of the cities have pointed out that reduced countywide growth estimates translates into projected future growth rates for them that are well below their historical growth rates and the rates assumed in their current general plans and infrastructure plans.

Earlier private sector projections had also been higher for the Central Valley, and for Fresno County in particular. However, more recent projections prepared by Stephen Levy, Senior Economist with the Center for the Continuing Study of the California Economy, which publishes independent population and employment projections, are consistent with the new DOF projections.

The report acknowledges that to the extent the proposed Economic Development Strategy is successful, more workers may be attracted to the county, leading to population growth higher than projected by DOF.

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Attachments



**FRESNO COUNTY  
GENERAL PLAN UPDATE**

**PREFERRED ECONOMIC AND GROWTH SCENARIO**

**ECONOMIC AND GROWTH ALLOCATION AND  
METHODOLOGY**

*PREPARED BY:*

**APPLIED DEVELOPMENT ECONOMICS  
IN ASSOCIATION WITH  
J. LAURENCE MINTIER & ASSOCIATES**

**FEBRUARY 11, 1999**

## INTRODUCTION

As part of the Fresno County General Plan Update program, County Staff and the General Plan Update Consultants prepared the report *Economic and Growth Scenarios: Perspectives on the Year 2020*. The report was published to solicit direction on the economic and growth philosophy that would guide preparation of the Draft General Plan. Following extensive public review and hearings and recommendations by the Planning Commission, the Board of Supervisors on July 28, 1998, selected a combination of Scenarios B (Shifts in Agricultural Production), Scenario C (Value-Added Agriculture), and Scenario D (Non-Agricultural Basic Employment) as the "Preferred Scenario."

Scenario B emphasized growth in agricultural production employment resulting from a shift in crop patterns from cotton and other lower-value crops to higher-value crops such as fruits, nuts, and vegetables. Scenario C projected a significant increase in industrial development resulting from value-added agricultural business activity and employment. These two scenarios were combined in the *Economic and Growth Scenarios* report since their land use implications overlapped substantially. Scenario D projected a significant increase in non-agricultural manufacturing and information technology industries in Fresno County.

As part of its direction, the Board also endorsed the recommendations of the *Landscape of Choice* report.

The General Plan Consultants used a slightly revised version of the methodology they used to prepare the economic and growth scenarios to prepare a statistical description of the Preferred Scenario. This Preferred Scenario also reflects new State Department of Finance (DOF) population projections which are substantially lower than the projections used as a basis for the *Economic and Growth Scenarios* report. The first part of this report describes the methodology for defining the preferred countywide economic scenario and allocating jobs and population to county geographic areas and cities. The second part of the report describes the methodology for translating the preferred economic scenario into a physical growth scenario.

Before describing the methodologies, however, several points need to be made about the geography of the allocation process. The process allocates jobs and employment to five geographic areas and to 15 incorporated cities as shown in Exhibit 1.

In the case of the incorporated cities, the allocation process uses the current LAFCO-adopted spheres of influence instead of current city limits to define the city. New jobs and population are allocated to city spheres without regard to whether there is sufficient land or adequate services today within the spheres to accommodate the projected growth. Thus, the allocation process treats cities more like centroids than physically defined containers for growth.



## **METHODOLOGY FOR DEFINING THE PREFERRED COUNTYWIDE ECONOMIC SCENARIO AND FOR ALLOCATING JOBS AND POPULATION TO COUNTY GEOGRAPHIC AREAS AND CITIES**

### **Total Population and Employment Growth**

The first step in creating the Preferred Scenario was to reconcile the earlier scenarios to the new California Department of Finance (DOF) projections released in 1998. The new DOF projection reduces the year 2020 county population from 1,505,500 to 1,114,403, reducing projected 2020 population by 26 percent and the 1996-2020 growth increment by 54 percent. The new 1996-2020 projection averages 1.6 percent annual growth, compared to 2.5 percent that occurred during the 1970-1990 period and 2.2 percent from 1990 to 1996. The most recent growth rates have been below two percent and DOF projects over the long term that Fresno County will move closer to the state average which DOF projects to decline from the high growth periods during the 1970s and 1980s. DOF also projects that Fresno will continue to experience the lower in-migration rates of the past several years compared to the early 1990s.

While earlier private sector projections show the Central Valley and Fresno in particular with a larger share of future statewide growth. The view reflected in the new DOF projections is corroborated by Stephen Levy, Senior Economist with the well-respected Center for the Continuing Study of the California Economy, which publishes independent population and employment projections out to the year 2005. Mr. Levy suggests that accelerating employment growth in the metropolitan regions of the state will result in slower growth in the Central Valley and this trend will not change until significant economic diversification occurs in the interior regions of the state.

The DOF projections reflect a continuation of past economic development trends in Fresno County and do not recognize the potential impact of the County's proposed Economic Development Strategy in terms of increased job growth or shifts in the type of jobs that may be created in Fresno County. However, since the main concern of the proposed Economic Development Strategy is improving the balance between job growth and the growth in labor force, County Staff and the Consultants recommend using the DOF projections in the Preferred Scenario for purposes of updating the General Plan. The Preferred Scenario, as described below, includes higher rates of job growth in relation to population growth than the county has experienced in the past. The primary desired outcome of this projection would be a reduction in the long term unemployment rate in the county. A secondary effect, not explicitly included in the projection, may be that the increased job base would attract additional workers from other regions and thus increase net migration and total population growth in the county above the level currently projected by DOF.

Exhibit 2 shows the Preferred Scenario and the projected growth over the 1996 base year. In constructing the employment projections, three economic sectors provided the driving forces consistent with the Board of Supervisors' direction on the Economic and Growth Scenarios report. These sectors include agricultural manufacturing, non-agricultural manufacturing, and commercial office development. In addition, the agricultural production employment (farm labor) follows a

moderate growth curve that reflects the countervailing net effects of crop changes and technological improvements in production practices. Supporting business sectors such as warehousing, distribution, and transportation activities were projected to grow in proportion to job growth in the four main sectors mentioned above. Other business types such as retail/services and public/institutional were projected to grow in relation to the new DOF population projections.

The total level of employment growth was projected at a rate to achieve a reduction in the average unemployment rate from about 13 percent currently to four percent by 2020. The bottom line in the exhibit shows the current and projected relationship between population and jobs in the county. In 1996, the number of jobs is estimated to be less than half the size of the population. For the 1996 to 2020 growth period, the number of new jobs is projected to be about two-thirds of the number of new persons residing in the county, resulting in a four percentage point increase in the jobs to population ratio and about a nine percent improvement in the relationship between jobs and labor force. As noted above, this does not account for the possibility of increased immigration of workers which would exert continued upward pressure on the county's unemployment rate.

### **Growth Allocations to the Cities and the Unincorporated Areas**

The process for the geographic allocations began with projecting basic employment (agricultural, industrial and regional office) in each jurisdiction. Population growth partially follows the basic employment distribution, with the remainder based on independent projections made by the Council of Fresno County Governments (COG). The total population projections for each jurisdiction provided the basis for distributing non-basic, or local-serving employment. Thus, the model assumes that basic employment drives part of the growth throughout the county. The first step in the process was to develop a 1996 base for each jurisdiction as described below. See the flow chart in Exhibit 3 outlining the overall process.

#### ***The 1996 Base***

The COG prepares regional land use projections for use in its regional transportation model (see Exhibit 4). This information was a useful starting point for the geographic allocations, with several adjustments. The first adjustment to the COG data was to increase total county employment and to decrease total county population. The population figures were adjusted to reflect more recent estimates by the California Department of Finance. The increased employment is due to the fact that Federal Bureau of Economic Analysis (BEA) figures for Fresno County showed higher total employment due primarily to differing estimates in farm labor, but also due in part to more comprehensive estimates in self-employment, which is frequently missed in wage-based employment estimates. The total of 359,000 jobs for the county matches better the labor force figures in terms of employed and unemployed residents in the county.

The next step was to adjust the distribution of development to reflect the different county totals. In this process, the Consultants translated the COG land use categories into the generalized categories used for the scenarios analysis. Exhibit 5 shows the Standard Industrial Classification

(SIC) definitions of the non-residential categories in the COG data. The non-residential generalized land use categories developed for the scenarios analysis are more detailed in several cases than the COG categories. They also differ from the business cluster definitions used by the Consultants to analyze the regional economy and to construct the economic scenarios which are the basis for the detailed employment projections in Exhibit 2. The discussion below outlines the specific assumptions and procedures used to reconcile the various land use and economic databases.

The non-residential generalized land use categories developed for the scenarios analysis include the following:

- Retail = Retail and all non-office services including lodging, personal services, repair services, and certain business services.
- Office = Finance, insurance, and real estate (FIRE) and office-related services such as computer-related, personnel agencies, and professional services.
- Industrial = Agricultural infrastructure, mining, construction, manufacturing, wholesale, and transportation communications and utilities (TCU).
- Public/Institutional = Government, education.
- Ag. Production = Ag. Production

The first step was to convert the COG land use categories into generalized land use categories. The State's Teale Data Center provided business cluster employment data by zip code that is very detailed in the agricultural, industrial, and office categories and permitted ADE to break apart the COG "Services" and "Other" categories into retail, office, industrial, and agricultural production employment. The SIC definitions of the business clusters are shown in Exhibit 6. The procedures for this allocation were as follows:

- A. The Teale data for the information processing cluster in each jurisdiction represents a part of the office employment category. We subtracted this employment from the COG services category and placed the remainder of the COG services category in the retail land use category.
- B. The remainder of the office category is comprised of local services, estimated in Fresno County to be about 15 percent of FIRE employment (less bank employment). This portion of the office employment was subtracted from the COG "Other" category.
- C. ADE further divided the COG "Other" category as follows:
  - Teale cluster data provided agricultural production employment.

- The industrial category received the remainder of "Other" employment not allocated to office or agriculture.

This process also required translating the zip code geography to the general plan land use geography. Exhibit 7 shows the zip codes in the county, while Exhibits 8 and 9 show the employment maps generated by with the Teale data. The maps do not provide information for all the zip codes due to disclosure restrictions. However, ADE was provided with a complete set of data for each cluster and zip code in tabular form for use in this projection process.

Exhibit 10 shows the correspondence between zip codes and city and county jurisdictions. Since the zip codes in most cases are larger than the city sphere of influences (SOIs), the following rules were applied to zip codes that include both city and county areas (but not for zips in the Fresno/Clovis metro areas that are totally within the city limits).

- Ag. Employment - 75 percent to unincorporated region, 25 percent to city SOI.
- Ag. Mfg.- 20 percent to unincorporated region, 80 percent to city SOI.
- Other employment - 100 percent to city SOI.

Finally, the resulting employment allocations required minor adjustments to correspond to State Employment Development Department (EDD) estimates of total employment in each jurisdiction. Exhibit 11 shows the resulting 1996 population and employment base, and Exhibit 12 shows the percent distribution of development for 1996 which may be used to compare with the future projections.

### Allocation Process

Allocation of the Preferred Scenario growth increment to the geographic units began with the business cluster employment. Each jurisdiction's share of cluster employment in 1996 provided the basis for distributing the future cluster growth. While we also have data showing growth in cluster employment between 1991 and 1996, many of the smaller locales experienced extreme fluctuations or declines in employment during this period. Any projection formulas we attempted that incorporated the growth data resulted in very improbable imbalances in the growth allocated to similar, nearby cities and regions. Therefore, the best results were achieved by using the 1996 distribution of employment as the sole basis for projecting future growth. While this is a relatively simple approach, it does correspond to the concept that clusters develop from existing buyer-supplier networks and tend to spread outward from business centers with the highest employment concentrations.

In this process the Consultants also recognized the recommendations of the *Landscape of Choice* document regarding the concentration of urban development in existing urban jurisdictions. In some cases, adjustments were made to direct certain kinds of future employment growth into city SOIs rather than county unincorporated areas even though it currently exists in county areas.

The cluster data (Exhibit 6) approximates the employment categories in the economic scenarios

(Exhibit 2). The combined total of the Teale agricultural infrastructure cluster and food production clusters (clusters 1-5) provided the basis for agricultural production employment allocations. The agricultural manufacturing employment corresponds to the food and fibre processing cluster (cluster 8), and the non-agricultural manufacturing employment corresponds to the metals and machinery cluster (cluster 6). Office employment corresponds to the information processing cluster (cluster 7). The Consultants then allocated construction, mining, warehouse, distribution, and transportation employment in proportion to the total manufacturing employment allocations in each jurisdiction.

The Consultants determined that a portion of population growth should also follow the cluster employment allocations. To some degree, the various scenarios emphasize different labor force characteristics and corresponding housing needs. The alternative emphasizing agricultural production and manufacturing (B/C) would increase housing demand in the smaller agricultural communities, while the non-agricultural manufacturing and the information processing (Alternative D) would focus housing demand to some extent in the Fresno-Clovis metropolitan areas and the communities along Highway 99.

Therefore, the Consultants calculated the percentage of total employment growth in each scenario that is in the basic employment categories and allocated this proportion of the population growth increment in each scenario to the jurisdictions in the same proportion as the basic employment was allocated. The Consultants used the COG 1996-2020 population projections to allocate the remainder of population growth in each scenario. The Consultants checked the total population projections against the 1996 distribution of population and any obvious disparities among the cities or the county planning areas were corrected. Finally, the Consultants allocated the local-serving non-basic employment growth in proportion to total population growth in each jurisdiction. The resulting allocations are shown in Exhibits 13 and 14.

### **Analysis of the Growth Allocations**

Exhibit 15 shows the percentage distribution of the 1996 to 2020 growth increment of the Preferred Scenario, which may be compared to the 1996 distribution shown in Exhibit 12. The allocations result in 93 percent of new population and employment growth within city spheres of influence and seven percent going to unincorporated county areas, compared to 85 percent and 15 percent, respectively, in 1996. Clovis and the Fresno gain a higher percentage of future growth in population and most employment categories than their 1996 share. The only exception to this is in agricultural production employment which increases more in the county's unincorporated areas.

The next three Exhibits (16, 17, and 18) show the ranking of the cities according to their growth projections. Exhibit 16 compares the population growth allocations. While the city of San Joaquin shows the highest percentage change, this is mainly because it is starting from the lowest base. Its numerical change is less than most of the other cities. Otherwise, Clovis and Fresno receive the majority of growth under the new projection. The county unincorporated area is lowest on the chart in terms of population growth percentage. It starts out with 15 percent of county population but gets only 7.4 percent of the increment.

Exhibit 17 shows a similar comparison for total employment. Fresno and Clovis are projected to gain most of the new jobs, although small cities like San Joaquin and Huron score well on a percentage basis. The unincorporated area is again last on the chart.

Exhibit 18 shows the differences by type of employment. Fresno and Clovis have very large percent changes in the office sector, which has the most job growth in the Preferred Scenario. This is major reason for their total employment growth being so high. Comparing Exhibit 12 and 18, Fresno has 70 percent of office employment currently and gets 80 percent of the future increment. Clovis has nearly 10 percent of the 1996 office employment base and gets 16 percent of the increment. Part of the reason for this strong performance is that Clovis experienced rapid growth in the prime business sectors comprising the information technology cluster which is a focus of the economic development strategy. The unincorporated area, on the other hand, is estimated to have more than eight percent of office employment in 1996 but gets less than one percent of the increment. This is an adjustment made to reflect the *Landscape of Choice* as noted earlier.

In the industrial sector, the unincorporated area appears in Exhibit 18 to have a very high growth rate, but again this is a function of the extremely low base in 1996. Some food processing development is likely to occur in the unincorporated area as this sector expands rapidly and this is the reason for the projection.

#### *Comparison of 2020 Population Projections with City and County Holding Capacities*

Exhibit 19 compares the new allocations to the estimated population holding capacities of each jurisdiction for the year 2020 (column 3 of the table). In most cases, the year 2020 holding capacities in the exhibit are hypothetical estimates made by the Consultants to extend the general plan horizon year for each city out to a consistent point for comparison with the growth scenario. This was done for all the cities except Clovis and Fresno (proposed 10z alternative), whose general plans already extend beyond 2020.

For most cities, the growth rates in column 3 of Exhibit 20 were used to make this adjustment. These are the rates implied by the difference between the city's 1996 population and the buildout population in the general plan horizon year. For Fowler, Huron, Orange Cove, and Sanger, where the buildout population had been exceeded by 1996, the growth rates in the first column of Exhibit 20 were used. These rates reflect actual growth from 1990 to 1996.

The general plan land use consultant, Crawford, Multari, Clark & Mohr (CMCM), estimated the county holding capacity. The total unincorporated area holding capacity is estimated at about 379,400, which reflects 80 percent of theoretical capacity at maximum zoning densities. CMCM revised this analysis from the figure presented in the Economic and Growth Scenarios report based on more detailed GIS measurements recently completed.

As shown in Exhibit 19, the new growth allocations can be accommodated within the holding capacities for each area/jurisdiction except for the city of Firebaugh and the unincorporated East Valley area.

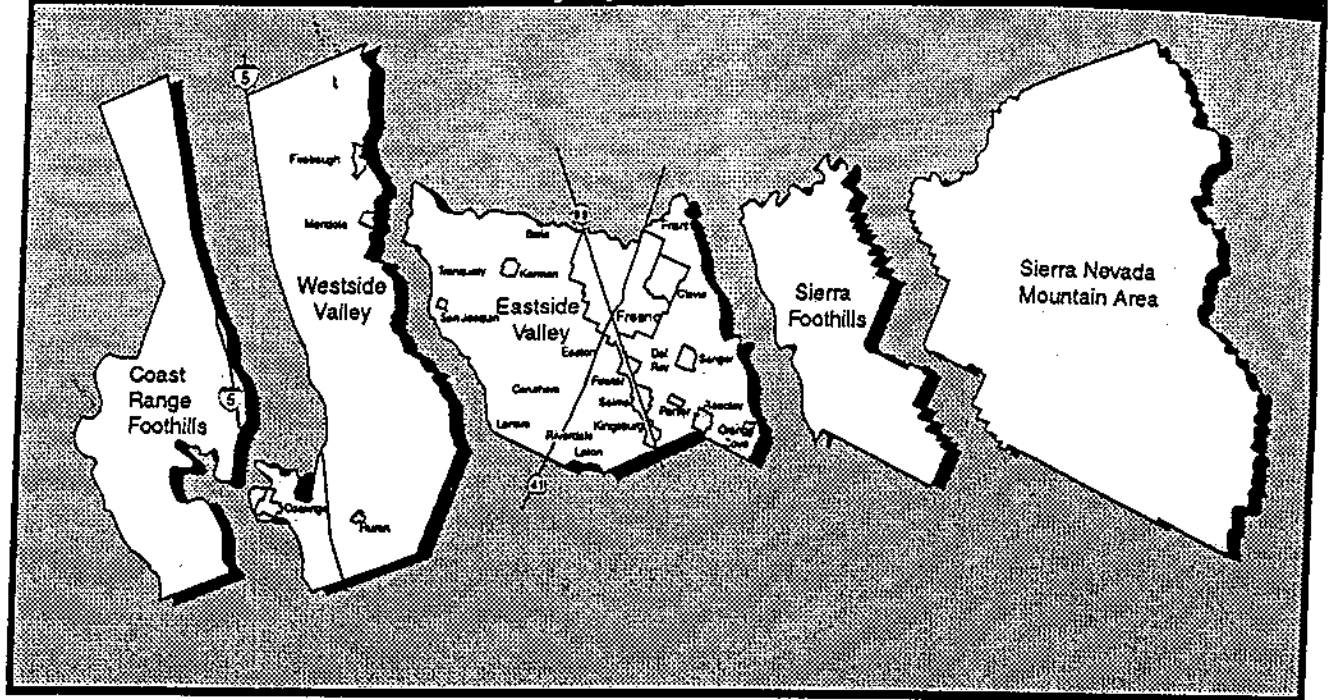
## **METHODOLOGY FOR TRANSLATING THE PREFERRED ECONOMIC SCENARIO INTO A GROWTH SCENARIO**

New employment and population allocated geographically in the previous phase was translated into a physical growth scenario using exactly the same methodology used in the Economic and Growth Scenarios report (see Exhibit 21 and 22). Based on a set of assumptions and multipliers (see Exhibit 23), population growth was converted to dwelling units and ultimately to residential land demand (acreage) (see Exhibits 24 and 25). Employment growth was converted to new building square footage and ultimately to non-residential land demand (acreage) (see Exhibits 26 and 27). The assumptions and multipliers used in this step (see Exhibit 21) come from various sources, but are generally based on current conditions in Fresno County and California. Some of these assumptions and multipliers such as residential density could be altered by local policy choices, which, of course, would change the land demand estimates. Exhibit 28 summarizes residential, non-residential, and total land demand by geographic area for the 1996-2020 growth increment.

Exhibit 29 compares the total land demand for each city with the amount of land within current LAFCO-adopted spheres of influence. As Exhibit 29 shows, projected land demand in 2020 can be accommodated within each city's current sphere except in the case of Fresno. It should be noted that this comparison in Exhibit 29 does not consider either vacant land and other infill possibilities within current city limits or existing development within city unincorporated spheres which could limit future growth. These two factors would offset each other to some extent.

# EXHIBIT 1

## Fresno County Geographic Areas and City Spheres of Influence



### CITY LIMITS AND SPHERE OF INFLUENCE POPULATION AND AREA 1996

	CITY LIMITS			SPHERE OF INFLUENCE		
	POPULATION	SQ. MI.	ACRES	POPULATION	SQ. MI.	ACRES
Coalinga	9,937	4.1	2,624	9,758	8.2	5,248
Firebaugh	5,822	3.1	1,984	5,763	5	3,000
Huron	5,534	1.8	1,024	6,203	2.1	1,344
Mendota	7,418	2.1	1,344	8,530	3.5	2,240
Clovis	65,047	15.4	9,856	68,552	22.8	14,592
Fowler	3,746	1.9	1,216	5,292	7.1	4,544
Fresno	400,884	104.3	66,762	440,648	142	90,860
Kerman	8,731	1.9	1,216	7,927	4.8	3,072
Kingsburg	8,472	2.3	1,472	8,950	5.7	3,648
Orange Cove	8,705	1.8	1,024	7,133	2.8	1,664
Partler	9,464	1.5	960	9,865	2.6	1,664
Reedley	19,102	4.3	2,752	20,714	7.9	4,972
Sanger	18,312	4.5	2,880	21,358	7.3	4,672
San Joaquin	2,024	1.0	640	3,850	11.5	960
Selma	17,320	3.9	2,496	21,843	10.2	6,528
INCORPORATED TOTAL	597,418	153.5	98,260	645,023	222.7	148,828
UNINCORPORATED TOTAL	174,414	5,851.6	3,745,024	115,798	5,772.4	3,694,336
FRESNO COUNTY TOTAL	761,832	6,005.1	3,843,284	761,821	6,005.1	3,843,284

This population figure is based on traffic analysis zones in a Council of Fresno County Governments traffic model. The traffic analysis zones selected in this case do not include all incorporated population.

Sources: California Department of Finance  
Fresno County LAPCO  
Consultant Team based on Council of Fresno County Governments

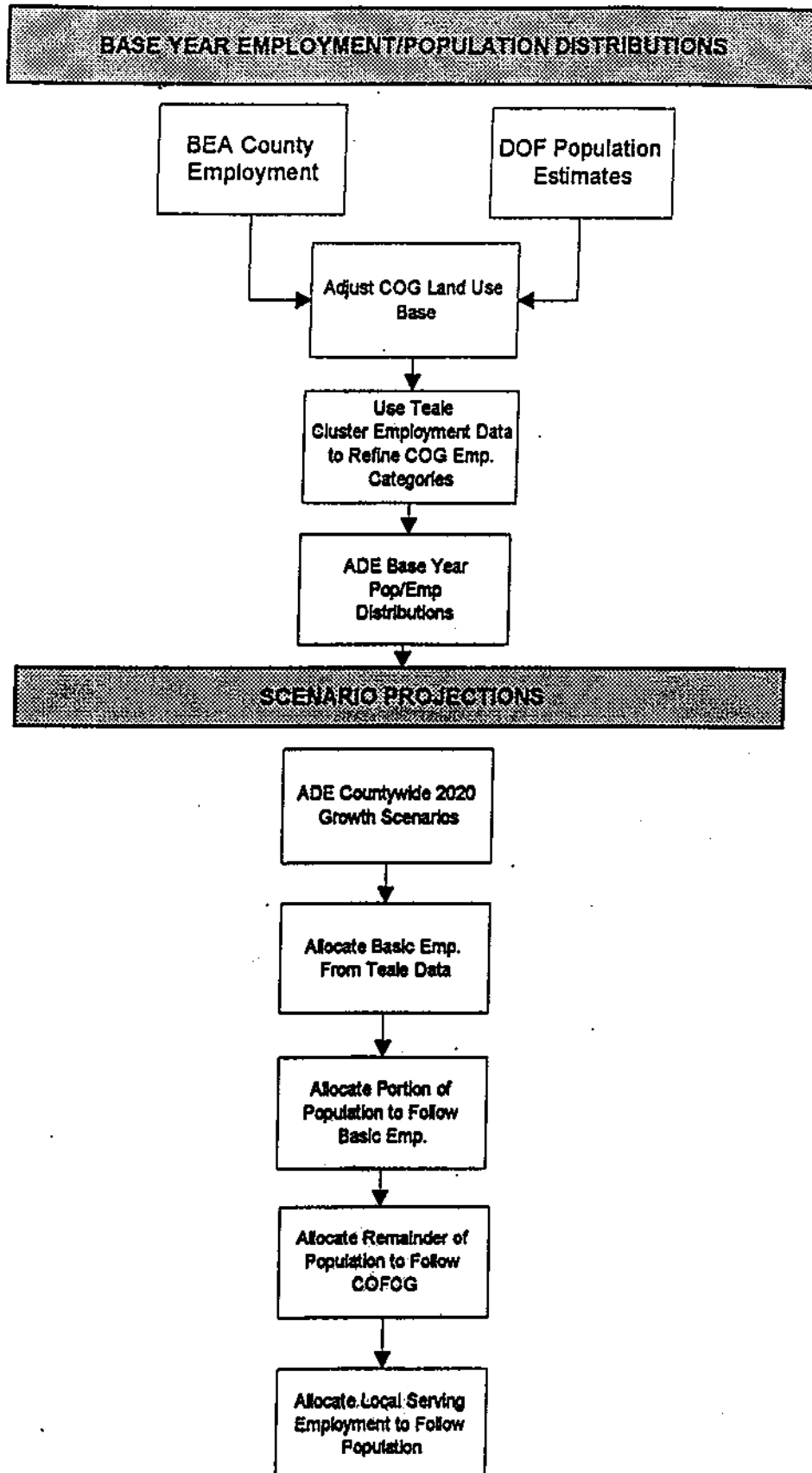


# EXHIBIT 2

## COUNTYWIDE GROWTH PROJECTIONS 1996, 2020, and 1996-2020 Growth Increment

	1996 Base Year	Preferred Scenario Combined (1.6% pop growth)	1996-2020 Growth Increment
Total Population	769,709	1,114,410	344,701
Total Employment	370,778	603,712	232,934
	100.0%	100.0%	100.0%
Ag. Production	86,333	103,091	16,758
Ag Mfg (Food & Fiber)	17,056	39,382	22,326
Non-ag Mfg	27,373	43,340	15,967
Construction, Mining	18,529	23,610	5,081
Warehouse, Distrib, Transp	30,321	46,921	16,600
Commercial: Retail & Svc	85,237	123,409	38,172
Commercial: Office	29,324	113,048	83,724
Other Local Serving	12,979	18,791	5,812
Public/Institutional	63,626	92,120	28,494
	17.2%	15.3%	12.2%
Ratio Emp. to Pop.	48.2%	54.2%	67.6%

### EXHIBIT 3



# EXHIBIT 4

## FRESNO COG 1995 LAND USE DATA

	Count	Population	Households	SFH.0	SFH.1	SFH.2+	MFH.0	MFH.1	MFH.2+	Employment	Retail	Service	Gov't	Education	Non-Retail	Other Emp
1995																
Clavis SOI	131	92,123	32,968	779	4,991	14,332	1,013	5,291	8,584	32,713	5,093	4,735	1,530	8,017	24,660	12,347
Coalinga SOI	12	9,321	3,345	232	904	1,205	102	433	427	2,501	415	435	216	494	2,087	943
County SOI	409	138,901	42,358	1,322	8,380	22,111	569	2,978	9,988	40,484	4,078	4,742	871	2,778	36,390	27,908
Firebaugh SOI	9	5,447	1,454	98	392	478	64	214	210	1,142	232	108	87	308	910	407
Fowler SOI	11	4,697	1,508	75	407	586	37	152	235	1,419	168	234	87	194	1,249	733
Fresno SOI	611	428,715	159,150	8,825	33,381	52,769	9,784	22,630	22,736	213,483	30,907	48,500	20,845	15,804	182,573	91,418
Huron SOI	8	6,888	1,888	151	282	308	238	328	380	841	101	113	71	79	530	276
Kerman SOI	11	8,881	2,599	217	606	972	92	301	408	1,881	284	237	204	339	1,817	840
Kingsburg SOI	17	8,833	3,082	242	847	1,200	112	252	538	3,495	519	632	180	328	2,074	1,835
Mendota SOI	6	9,285	2,727	243	536	632	152	301	359	1,821	165	123	90	154	1,421	1,045
Orange Cam SOI	9	7,854	1,615	224	520	707	55	121	187	1,298	141	182	71	143	1,154	747
Parlier SOI	6	10,498	2,436	231	630	940	98	236	300	2,175	216	183	127	354	1,858	1,295
Reedley SOI	28	22,308	8,548	481	1,473	2,586	314	671	1,140	7,170	1,158	1,410	322	924	6,015	3,358
San Joaquin SOI	3	4,277	991	70	255	323	29	144	169	621	70	80	51	122	549	292
Sanger SOI	22	22,831	6,346	480	1,441	2,507	217	615	1,051	7,845	1,000	930	568	704	6,844	4,033
Selma SOI	17	23,423	6,781	438	1,870	2,827	204	726	927	5,214	1,559	920	229	458	3,055	2,049
Total County	1106	803,361	266,492	14,845	66,576	104,831	13,876	36,410	42,540	323,211	46,119	81,886	31,578	29,196	374,696	189,186

## EXHIBIT 5

### STANDARD INDUSTRIAL CLASSIFICATION CODE BY INDUSTRIAL CATEGORY AS USED IN THE TRAFFIC MODEL

CATEGORY	STANDARD INDUSTRIAL CLASSIFICATION CODE*
Retail	5211 - 5999
Services	7011 - 8111 8322 - 8999
Government	4111 4311 8231 9111 - 9399 9431 - 9799
Education	4151 8211 - 8222 8241 - 8299 9411
Other	0111 - 4013 4119 - 4142 4173 - 4231 4412 - 5199 6011 - 6799 9999

- \* Standard Industrial Classification (SIC) codes are the classification standard used by all Federal and State economic statistics tabulated by industrial sector.

# EXHIBIT 6

## SIC DEFINITIONS OF CLUSTERS

### CLUSTER 1

#### SIC AGRICULTURE INFRASTRUCTURE

071 Soil preparation services  
 072 Crop services  
 076 Farm labor and management services  
 Production Services  
 0181 Ornamental Floriculture and Nursery Products  
 287 Agricultural chemicals  
 3423 Hand and edge tools, nec  
 3523 Farm machinery and equipment  
 3524 Lawn and garden equipment  
 3561 Pumps and pumping equipment  
 497 Irrigation systems  
 Production Inputs & Equipment  
 244 Wood Containers  
 265 Paperboard containers and boxes  
 275 Commercial Printing  
 3081 Unsupported plastics film & sheet  
 3086 Plastics foam products  
 3089 Plastics products, nec  
 3221 Glass containers  
 341 Metal cans and shipping containers  
 3466 Closures and closures  
 Packaging Material  
 3535 Conveyors and conveying equipment  
 3536 Food products machinery  
 3565 Packaging machinery  
 Processing Equipment  
 4221 Farm product warehousing and storage  
 4222 Refrigerated warehousing and storage  
 473 Freight transportation arrangement  
 478 Miscellaneous transportation services  
 Storage and Distribution  
 622 Commodity contracts brokers, dealers  
 623 Security and commodity exchanges  
 Financial Services

### CLUSTER 2

#### SIC COTTON CLUSTER

0131 Cotton  
 0724 Cotton ginning  
 Cotton Production  
 2074 Cottonseed oil mills  
 Cotton-based Food Products  
 221 Broadwoven fabric mills, cotton  
 226 Textile finishing, except wool  
 228 Yarn and thread mills  
 239 Misc. fabricated textile products  
 Cotton Textiles

### CLUSTER 3

#### SIC FRUITS, NUTS, VEGETABLES CLUSTER

016 Vegetables  
 017 Fruits and Tree Nuts  
 0182 Food Crops Grown Under Cover  
 019 General Farms, Primarily Crop  
 Vegetable & Fruit Production  
 203 Preserved fruits and vegetables  
 2068 Salted and roasted nuts and seeds  
 2084 Wines, brandy, and brandy spirits  
 Processed Vegetables, Fruits, Nuts  
 5141 Groceries, general line  
 5142 Packaged frozen foods  
 5148 Fresh fruits and vegetables  
 5159 Farm-product raw materials, nec  
 5182 Wine and distilled beverages  
 Distribution-Fruit & Vegetable Products

### CLUSTER 4

#### SIC OTHER AGRICULTURAL CROPS

011 Cash Grains  
 0133 Sugarcane and Sugar Beets  
 0134 Irish Potatoes  
 Other Crops  
 2041 Flour and other grain mill products  
 2043 Cereal breakfast foods  
 2044 Rice milling  
 2045 Prepared flour mixes and doughs  
 2046 Wet corn milling  
 205 Bakery products  
 206 Sugar and confectionery products  
 2075 Soybean oil mills  
 2076 Vegetable oil mills, nec  
 2096 Potato chips and similar snacks  
 2098 Macaroni and spaghetti  
 2099 Food preparations, nec  
 Misc. Processed Food Products  
 5145 Confectionery  
 5149 Groceries and related products, nec  
 5153 Grain and field beans  
 Distribution-Other Food Products

### CLUSTER 5

#### SIC LIVESTOCK, POULTRY, DAIRY CLUSTER

021 Livestock, Except Dairy and Poultry  
 024 Dairy Farms  
 025 Poultry and Eggs  
 027 Animal Specialties  
 029 General Farms, Primarily Livestock & Animal Spec  
 Livestock Production  
 074 Veterinary services  
 075 Animal services, except veterinary  
 Livestock Services  
 0139 Field Crops, Except Cash Grains, NEC  
 2048 Prepared feeds, nec  
 Feed and Pasture  
 301 Meat products  
 302 Dairy products  
 2047 Dog and cat food  
 2077 Animal and marine fats and oils  
 Processed Animal Products  
 5143 Dairy products, exc. dried or canned  
 5144 Poultry and poultry products  
 5147 Meats and meat products  
 5154 Livestock -  
 Distribution-Livestock & Animal Products

### CLUSTER 6

#### SIC METALWORKING & MACHINERY CLUSTER

344 Fabricated structural metal products  
 347 Metal services, nec  
 349 Misc. fabricated metal products  
 Fabricated Metal Products  
 354 Metalworking machinery  
 3562 Ball and roller bearings  
 3563 Air and gas compressors  
 3564 Blowers and fans  
 3566 Speed changers, drives, and gears  
 3567 Industrial furnaces and ovens  
 3568 Power transmission equipment, nec  
 3569 General industrial machinery, nec  
 359 Industrial machinery, nec  
 Mechanical Equipment  
 5083 Farm and garden machinery  
 5084 Industrial machinery and equipment  
 5085 Industrial supplies  
 Distribution-Machinery

### CLUSTER 7

#### SIC INFORMATION PROCESSING CLUSTER

631 Life insurance  
 737 Computer and data processing services  
 7389 Business services, nec  
 872 Accounting, auditing, & bookkeeping  
 874 Management and public relations

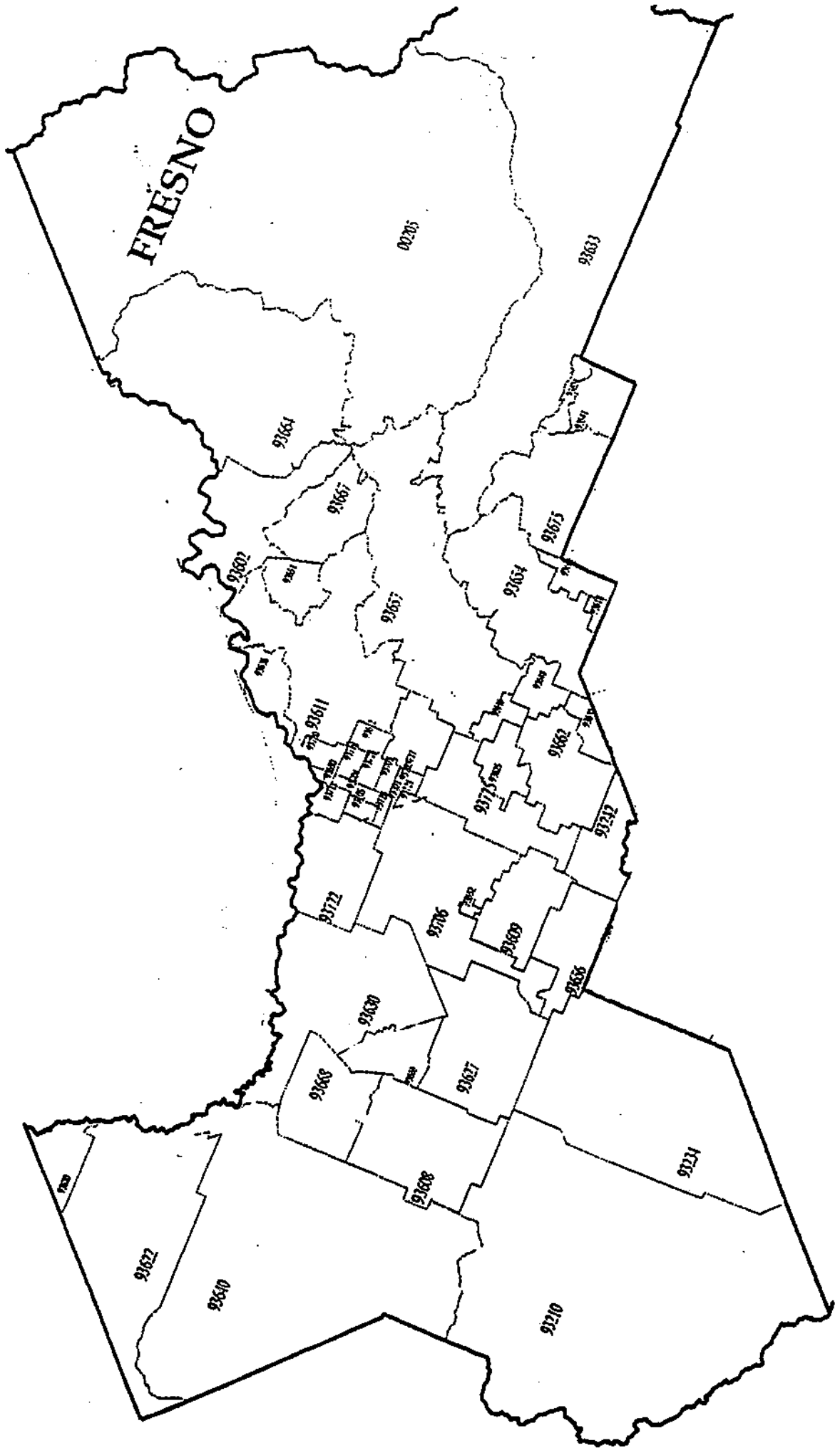
## EXHIBIT 6 (CONT.)

### CLUSTER 8

SIC	FOOD AND FIBRE PROCESSING CLUSTER
201	Meat products
202	Dairy products
203	Preserved fruits and veg.
2041	Flour
2043	Cereal
2044	Rice milling
2045	Prepared flour mixes
2046	Wet corn milling
2047	Dog and cat food
2048	Prepared foods
205	Bakery products
206	Sugar products
2068	Salted and roasted nuts/seeds
2074	Cottonseed oil mills
2075	Soybean oil mills
2076	Vegetable oil mills
2077	Animal fats
2084	Wines and brandy
2096	Potato chips, etc.
2098	Macaroni
2099	Food preparations, nec.
221	Broadwoven cotton mills
226	Textile finishing, except wool
228	Yarn and thread mills
239	Misc. Fabricated textiles
5141	Groceries
5142	Packaged frozen foods
5143	Dairy products
5144	Poultry
5145	Confectionary
5147	Meat products
5149	Groceries, nec.
5182	Wines and distilled beverages

EXHIBIT 7

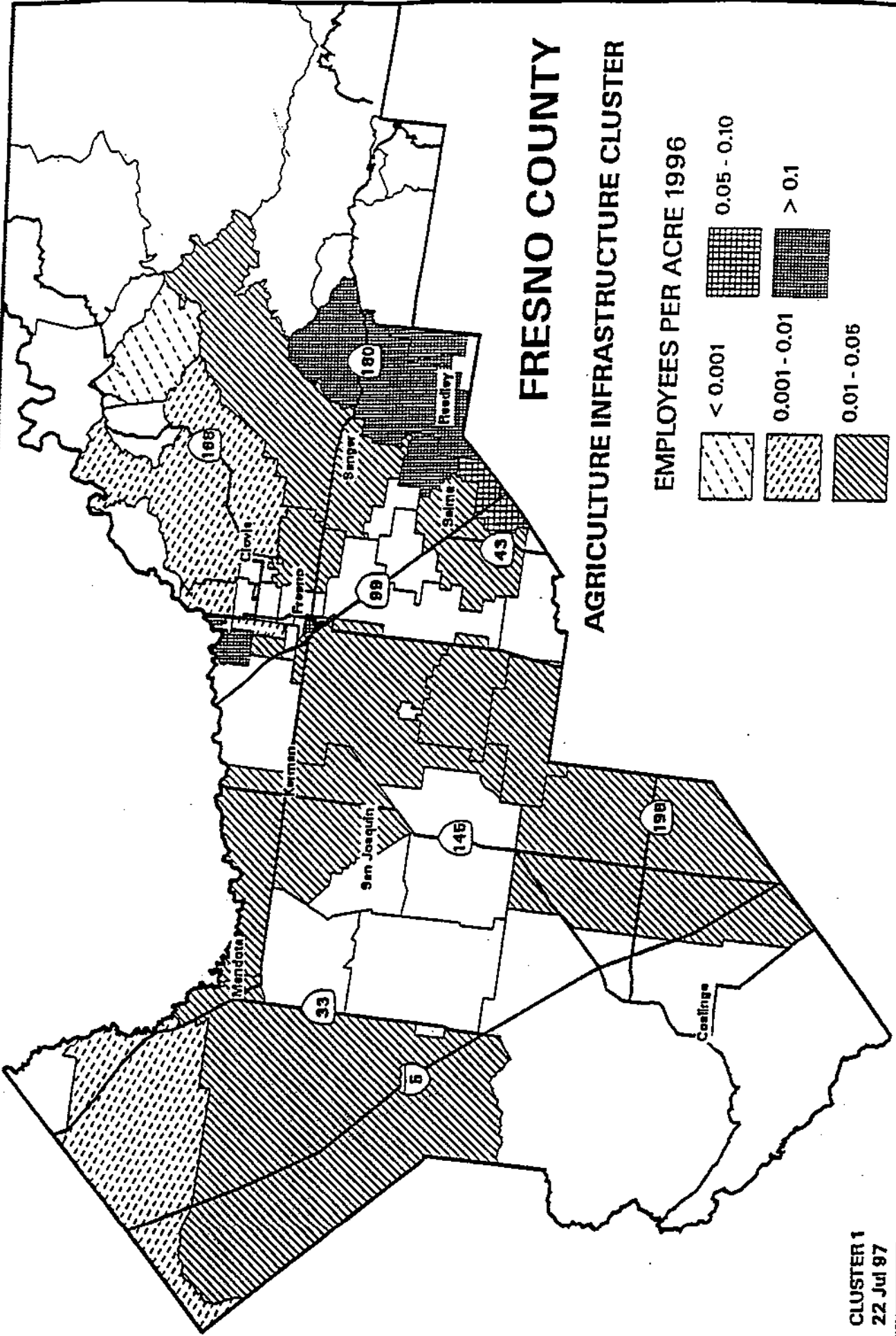
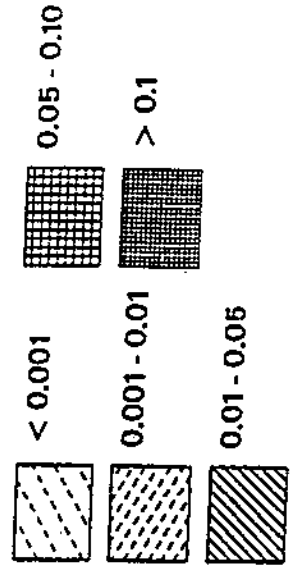
FRESNO COUNTY ZIP CODES



# FRESNO COUNTY

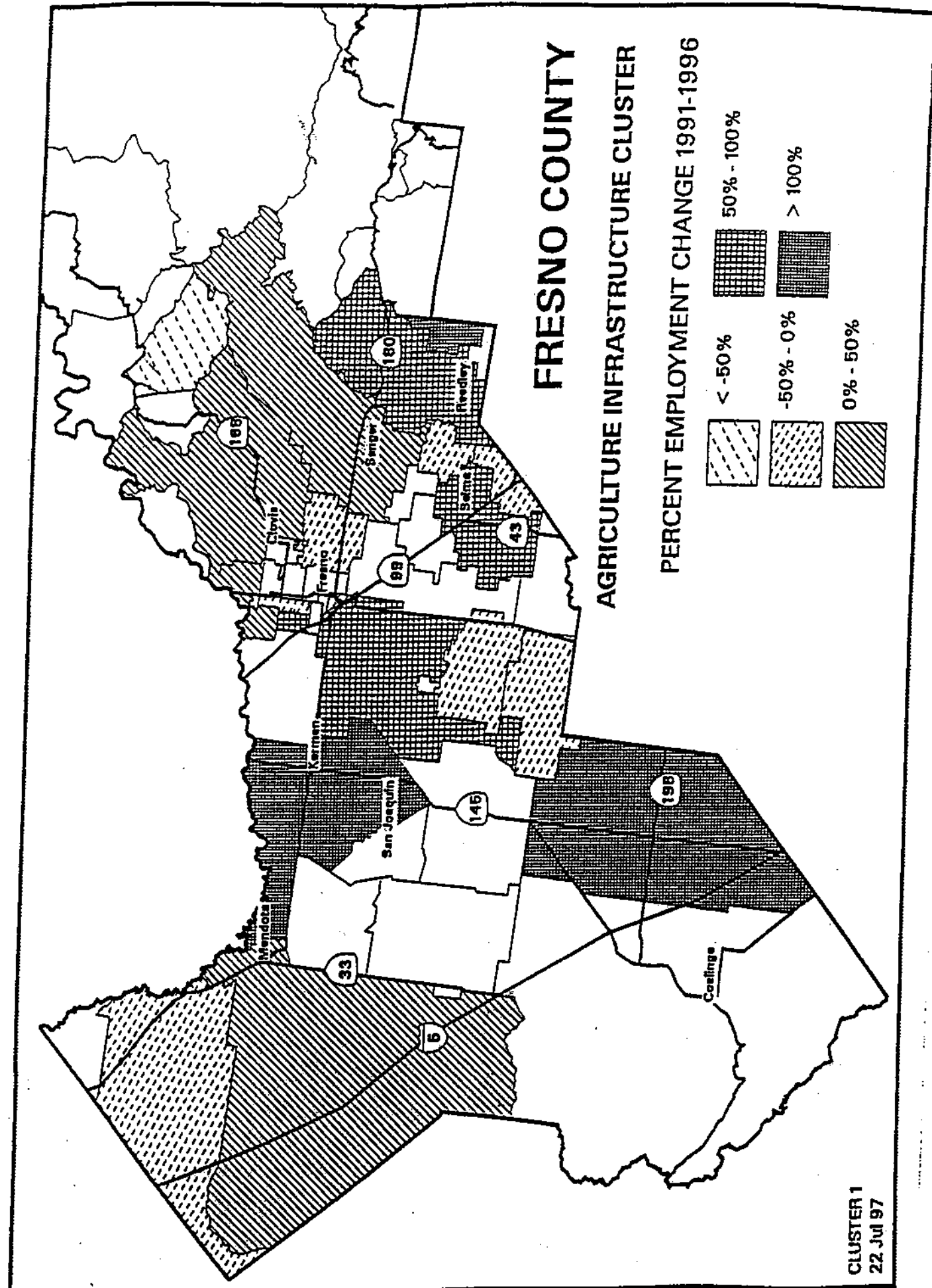
## AGRICULTURE INFRASTRUCTURE CLUSTER

EMPLOYEES PER ACRE 1996



CLUSTER 1  
22 Jul 97





# EXHIBIT 10

## ZIP CODE ALLOCATION TO CITY/COUNTY JURISDICTIONS

<u>Jurisdictions</u>	<u>Zip Codes</u>
<b>EAST VALLEY</b>	
Clovis	93612
	93720 (Share with Fresno)
	93710 (Share with Fresno)
	93727 (Share with Fresno)
	93611 (Share with County)
Fowler	93625
Fresno	93720 (Share with Clovis)
	93710 (Share with Clovis)
	93727 (Share with Clovis)
	93706 (Share with County)
	93723 (Share with County)
	93727 (Share with County)
	93702
	93721
	73701
	73703
	73728
	73705
	73705
	73704
	73650
	93711
Kerman	93630
Kingsburg	93631
Orange Cove	93646
Parlier	93648
Reedley	93654
San Joaquin	93660
Sanger	93657
Selma	93662
Unincorporated	93242
	93656
	93609
	93652
	93627
Sierra Foothills	93611 (part)
	93618
<b>West Valley</b>	
Coalinga	93210
Firebaugh	93622
Huron	93234
Mendota	93640
Unincorporated	93620
	93608
	93668

## EXHIBIT 11

## GEOGRAPHIC ALLOCATION OF POPULATION AND EMPLOYMENT

Base Year 1996

	Population	Tot. Employ.	Retail/Local	Office	Industrial	Pub./Inst.
<b>FRESNO COUNTY TOTAL</b>	769,700	370,781	98,217	29,325	93,280	63,625
<b>EAST VALLEY TOTAL</b>	709,805	342,999	94,108	28,500	87,931	61,072
Clovis	69,260	34,238	8,929	2,883	11,306	7,823
Fowler	5,347	2,282	358	159	700	294
Fresno	445,199	221,994	68,432	20,768	64,278	43,450
Kerman	8,009	2,699	488	136	280	588
Kingsburg	9,042	4,137	1,018	340	1,511	528
Orange Cove	7,186	2,317	304	113	1,399	232
Parlier	9,967	3,293	385	159	1,632	512
Reedley	20,928	8,863	2,308	717	1,119	1,333
San Joaquin	3,718	798	166	47	271	204
Sanger	21,577	8,273	1,760	650	2,892	1,324
Selma	21,867	7,139	2,353	419	2,425	784
Unincorporated East Valley	87,705	46,966	7,607	2,109	118	4,000
<b>SIERRA FOOTHILLS (county)</b>	11,727	2,234	596	61	5	382
<b>SIERRA NEVADA MTNS. (county)</b>	6,146	906	664	59	6	176
<b>WEST VALLEY TOTAL</b>	41,748	24,609	2,826	696	5,337	1,994
Coalinga	9,859	4,265	756	201	2,099	722
Firebaugh	5,853	2,626	325	71	1,269	406
Huron	6,267	2,483	224	52	933	188
Mendota	8,627	2,975	334	123	1,026	296
Unincorporated West Valley	11,142	12,260	1,187	249	10	382
<b>COAST RANGE FOOTHILLS</b>	274	33	23	9	1	1

# EXHIBIT 12

## ALLOCATION OF COUNTYWIDE ECONOMIC SCENARIOS TO GEOGRAPHIC UNITS Base Year 1996

	Population	Tot. Employ.	Retail/Local	Office	Industrial	Pub./Inst.
Clovis	9.0%	9.2%	9.1%	9.8%	12.1%	12.3%
Coalinga	1.3%	1.2%	0.8%	0.7%	2.3%	1.1%
Firebaugh	0.8%	0.7%	0.3%	0.2%	1.4%	0.6%
Fowler	0.7%	0.6%	0.4%	0.5%	0.8%	0.5%
Fresno	57.8%	59.9%	69.7%	70.8%	68.9%	68.3%
Huron	0.8%	0.7%	0.2%	0.2%	1.0%	0.3%
Kerman	1.0%	0.7%	0.5%	0.5%	0.3%	0.9%
Kingsburg	1.2%	1.1%	1.0%	1.2%	1.6%	0.8%
Mendota	1.1%	0.8%	0.3%	0.4%	1.1%	0.5%
Orange Cove	0.9%	0.6%	0.3%	0.4%	1.5%	0.4%
Parlier	1.3%	0.9%	0.4%	0.5%	1.8%	0.8%
Reedley	2.7%	2.4%	2.4%	2.4%	1.2%	2.1%
San Joaquin	0.5%	0.2%	0.2%	0.2%	0.3%	0.3%
Sanger	2.8%	2.2%	1.8%	2.2%	3.1%	2.1%
Selma	2.8%	1.9%	2.4%	1.4%	2.6%	1.2%
Unincorp. County	15.2%	16.8%	10.3%	8.5%	0.2%	7.8%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
East Valley	11.4%	12.7%	7.7%	7.2%	0.1%	6.3%
Sierra Foothills	1.5%	0.6%	0.6%	0.2%	0.0%	0.6%
Sierra Nev. Mtns.	0.8%	0.2%	0.7%	0.2%	0.0%	0.3%
West Valley	1.4%	3.3%	1.2%	0.8%	0.0%	0.6%
Coast Range	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

## EXHIBIT 13

**PREFERRED SCENARIO**  
**GEOGRAPHIC ALLOCATION OF POPULATION AND EMPLOYMENT**  
**Growth Increment (1996 - 2020)**

	Population	Tot. Employ.	Retail/Local	Office	Industrial	Pub./Inst.
<b>FRESNO COUNTY TOTAL</b>	344,085	231,241	43,905	83,308	59,975	28,443
<b>EAST VALLEY TOTAL</b>	325,592	219,660	41,546	82,660	56,061	26,914
Clovis	42,274	28,779	5,394	13,587	6,043	3,494
Fowler	1,795	1,191	229	209	480	148
Fresno	230,782	159,995	29,448	66,782	40,937	19,077
Kerman	3,006	1,466	384	180	466	248
Kingsburg	2,519	1,610	321	190	776	208
Orange Cove	1,964	1,209	251	63	699	162
Parlier	2,925	1,782	373	209	873	242
Reedley	6,787	3,672	866	402	1,142	561
San Joaquin	2,573	831	328	84	188	213
Sanger	5,304	3,713	677	368	1,954	438
Selma	7,172	3,662	915	391	1,563	593
Unincorporated East Valley	18,493	11,750	2,360	194	939	1,529
<b>SIERRA FOOTHILLS (county)</b>	2,211	1,196	282	167	110	183
<b>SIERRA NEVADA MTNS. (county)</b>	565	119	72	0	0	47
<b>WEST VALLEY TOTAL</b>	15,692	10,260	2,002	481	3,804	1,297
Coalinga	3,183	1,977	406	105	1,113	263
Firebaugh	1,905	1,326	243	81	746	157
Huron	3,189	1,844	407	84	899	264
Mendota	3,211	1,685	410	159	638	265
Unincorporated West Valley	4,204	3,427	536	53	409	348
<b>COAST RANGE FOOTHILLS</b>	25	5	3	0	0	2

## EXHIBIT 14

PREFERRED SCENARIO  
GEOGRAPHIC ALLOCATION OF TOTAL POPULATION AND EMPLOYMENT  
2020 Total

	Population	Tot. Employ.	Retail/Local	Office	Industrial	Pub./Inst.
<b>FRESNO COUNTY TOTAL</b>	1,113,785	602,020	142,122	112,632	153,253	92,070
<b>EAST VALLEY TOTAL</b>	1,035,397	562,658	135,653	111,160	143,991	87,989
Clovis	111,534	63,017	14,323	16,470	17,349	11,317
Fowler	7,142	3,473	587	368	1,179	443
Fresno	675,981	381,989	97,880	87,551	105,216	62,527
Kerman	11,015	4,165	871	315	746	837
Kingsburg	11,562	5,746	1,339	530	2,287	736
Orange Cove	9,150	3,526	555	177	2,098	395
Parlier	12,892	5,075	758	369	2,505	754
Reedley	27,715	12,535	3,174	1,119	2,261	1,894
San Joaquin	6,291	1,629	494	130	459	417
Sanger	26,880	11,986	2,437	1,018	4,846	1,763
Selma	29,038	10,801	3,268	810	3,988	1,377
Unincorporated East Valley	106,197	58,716	9,967	2,303	1,057	5,529
<b>SIERRA FOOTHILLS (county)</b>	13,938	3,430	879	229	115	565
<b>SIERRA NEVADA MTNS. (county)</b>	6,711	1,024	736	59	6	223
<b>WEST VALLEY TOTAL</b>	57,440	34,870	4,828	1,175	9,140	3,290
Coalinga	13,042	6,242	1,162	305	3,211	985
Firebaugh	7,757	3,952	568	151	2,014	563
Huron	9,456	4,328	631	136	1,832	452
Mendota	11,838	4,661	743	282	1,664	561
Unincorporated West Valley	15,347	15,687	1,724	301	419	729
<b>COAST RANGE FOOTHILLS</b>	299	38	26	9	1	3

# EXHIBIT 15

## PREFERRED SCENARIO Distribution of 1996-2020 Increment

	Population	Tot. Employ.	Retail/Local	Office	Industrial	Pub./Inst.
Clovis	12.3%	12.4%	12.3%	16.3%	10.1%	12.3%
Coalinga	0.9%	0.9%	0.9%	0.1%	1.9%	0.9%
Firebaugh	0.6%	0.6%	0.6%	0.1%	1.2%	0.6%
Fowler	0.5%	0.5%	0.5%	0.3%	0.8%	0.5%
Fresno	67.1%	69.2%	67.1%	80.2%	68.3%	67.1%
Huron	0.9%	0.8%	0.9%	0.1%	1.5%	0.9%
Kerman	0.9%	0.6%	0.9%	0.2%	0.8%	0.9%
Kingsburg	0.7%	0.7%	0.7%	0.2%	1.3%	0.7%
Mendota	0.9%	0.7%	0.9%	0.2%	1.1%	0.9%
Orange Cove	0.6%	0.5%	0.6%	0.1%	1.2%	0.6%
Parlier	0.9%	0.8%	0.9%	0.3%	1.5%	0.9%
Reedley	2.0%	1.6%	2.0%	0.5%	1.9%	2.0%
San Joaquin	0.7%	0.4%	0.7%	0.1%	0.3%	0.7%
Sanger	1.5%	1.6%	1.5%	0.4%	3.3%	1.5%
Selma	2.1%	1.6%	2.1%	0.5%	2.6%	2.1%
Unincorp. County	7.4%	7.1%	7.4%	0.5%	2.4%	7.4%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
East Valley	5.4%	5.1%	5.4%	0.2%	1.6%	5.4%
Sierra Foothills	0.6%	0.5%	0.6%	0.2%	0.2%	0.6%
Sierra Nev. Mtns.	0.2%	0.1%	0.2%	0.0%	0.0%	0.2%
West Valley	1.2%	1.5%	1.2%	0.1%	0.7%	1.2%
Coast Range	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

EXHIBIT 16

FRESNO COUNTY GENERAL PLAN UPDATE  
POPULATION GROWTH ASSUMPTIONS

	1996 Population	2020 Population	Growth Percentage	Annual Growth Percentage	Deviation From County Ave.
San Joaquin	3,718	6,291	69.2%	2.2%	0.7%
Clovis	69,260	111,534	61.0%	2.0%	0.5%
Fresno	445,199	675,981	51.8%	1.8%	0.2%
Huron	6,267	9,456	50.9%	1.7%	0.2%
Kerman	8,009	11,015	37.5%	1.3%	-0.2%
Mendota	8,627	11,838	37.2%	1.3%	-0.2%
Fowler	5,347	7,142	33.6%	1.2%	-0.3%
Selma	21,867	29,038	32.8%	1.2%	-0.4%
Firebaugh	5,853	7,757	32.5%	1.2%	-0.4%
Reedley	20,928	27,715	32.4%	1.2%	-0.4%
Coalinga	9,859	13,042	32.3%	1.2%	-0.4%
Parlier	9,967	12,892	29.3%	1.1%	-0.5%
Kingsburg	9,042	11,562	27.9%	1.0%	-0.5%
Orange Cove	7,186	9,150	27.3%	1.0%	-0.5%
Sanger	21,577	26,880	24.6%	0.9%	-0.6%
Unincorp. County	116,995	142,493	21.8%	0.8%	-0.7%
TOTAL	769,700	1,113,785	44.7%	1.6%	



EXHIBIT 17

FRESNO COUNTY GENERAL PLAN UPDATE  
TOTAL EMPLOYMENT GROWTH ASSUMPTIONS

	1996 Total Employment	2020 Total Employment	24-Year Growth Percentage	Annual Growth Percentage	Deviation From County Ave.
San Joaquin	798	1,629	104.2%	3.02%	0.98%
Clovis	34,238	63,017	84.1%	2.57%	0.53%
Huron	2,483	4,328	74.3%	2.34%	0.30%
Fresno	221,994	381,989	72.1%	2.29%	0.25%
Mendota	2,975	4,661	56.6%	1.89%	-0.15%
Kerman	2,699	4,165	54.3%	1.82%	-0.22%
Parlier	3,293	5,075	54.1%	1.82%	-0.22%
Orange Cove	2,317	3,526	52.2%	1.76%	-0.28%
Fowler	2,282	3,473	52.2%	1.76%	-0.28%
Selma	7,139	10,801	51.3%	1.74%	-0.30%
Firebaugh	2,626	3,952	50.5%	1.72%	-0.32%
Coalinga	4,265	6,242	46.4%	1.60%	-0.44%
Sanger	8,273	11,986	44.9%	1.56%	-0.48%
Reedley	8,863	12,535	41.4%	1.45%	-0.59%
Kingsburg	4,137	5,746	38.9%	1.38%	-0.66%
Unincorp. County	62,397	78,896	26.4%	0.98%	-1.06%
TOTAL	370,779	602,021	62.4%	2.04%	

EXHIBIT 18

ECONOMIC DEVELOPMENT STRATEGY GROWTH SCENARIO  
1996-2020 EMPLOYMENT GROWTH RATES

	Total Employment	Retail	Office	Industrial	Public
San Joaquin	104.2%	198.1%	179.1%	69.7%	104.0%
Clovis	84.1%	60.4%	471.2%	53.4%	44.7%
Huron	74.3%	181.9%	161.2%	96.4%	140.0%
Fresno	72.1%	43.0%	321.6%	63.7%	43.9%
Mendota	56.6%	122.8%	128.7%	62.2%	89.8%
Kerman	54.3%	78.7%	132.4%	166.6%	42.2%
Parlier	54.1%	97.1%	131.4%	53.5%	47.3%
Orange Cove	52.2%	82.3%	56.1%	49.9%	69.9%
Fowler	52.2%	63.9%	131.9%	68.6%	50.4%
Selma	51.3%	38.9%	93.2%	64.4%	75.6%
Firebaugh	50.5%	74.9%	114.7%	58.8%	38.8%
Coalinga	46.4%	53.7%	52.2%	53.0%	36.4%
Sanger	44.9%	38.5%	56.7%	67.6%	33.1%
Reedley	41.4%	37.5%	56.0%	102.0%	42.1%
Kingsburg	38.9%	31.6%	56.0%	51.3%	39.4%
Unincorp. County	26.4%	32.3%	16.7%	1042.0%	42.7%
TOTAL	62.4%	44.7%	284.1%	64.3%	44.7%

EXHIBIT 19

COMPARISON OF SCENARIO PROJECTIONS  
AND GENERAL PLAN BUILDOUT

	1996	General Plan Population Holding Capacity [a]	Estimated Year 2020 Holding Capacity [b]	Economic Development Scenario	Difference From Year 2020 Holding Capacity
Clovis	69,260	223,800	223,800	111,534	112,266
Coalinga	9,859	16,000	18,174	13,042	5,132
Firebaugh	5,853	6,700	7,266	7,757	(491)
Fowler	5,347	3,160	44,392	7,142	37,250
Fresno	445,199	920,000	920,000	675,981	244,019
Huron	6,267	5,530	17,568	9,456	8,112
Kerman	8,009	15,000	19,422	11,015	8,407
Kingsburg	9,042	13,800	17,049	11,562	5,487
Mendota	8,627	12,000	15,190	11,838	3,352
Orange Cove	7,186	7,000	20,196	9,150	11,046
Parlier	9,967	14,000	24,664	12,892	11,772
Reedley	20,928	35,000	45,262	27,715	17,547
Sanger	21,577	19,800	60,855	26,880	33,975
San Joaquin	3,718	7,000	8,644	6,291	2,353
Selma	21,867	49,674	53,521	29,038	24,483
Unincorp. Count	116,995	379,394	379,394	142,493	236,901
East Valley	87,705	105,358	105,358	106,197	(839)
Sierra Foothills	11,727	27,541	27,541	13,938	13,603
Sierra Nev. Mtns	6,146	19,392	19,392	6,711	12,681
West Valley	11,142	207,396	207,396	15,347	192,049
Coast Range	274	3,452	3,452	299	3,153
TOTAL	769,700	1,727,858	1,875,399	1,113,786	761,613

[a] City holding capacities are taken from Table 3 of the Economic and Growth Scenarios Report, except where updated by the city in its questionnaire. County holding capacities calculated by CMCA.

[b] Estimated 2020 holding capacities are calculated by ADE to extend general plan development beyond each city's plan horizon year. In most cases the rates used to extend the capacity figures use lower rates developed from the general plans rather than the higher actual growth rates from 1990-1996.

EXHIBIT 20

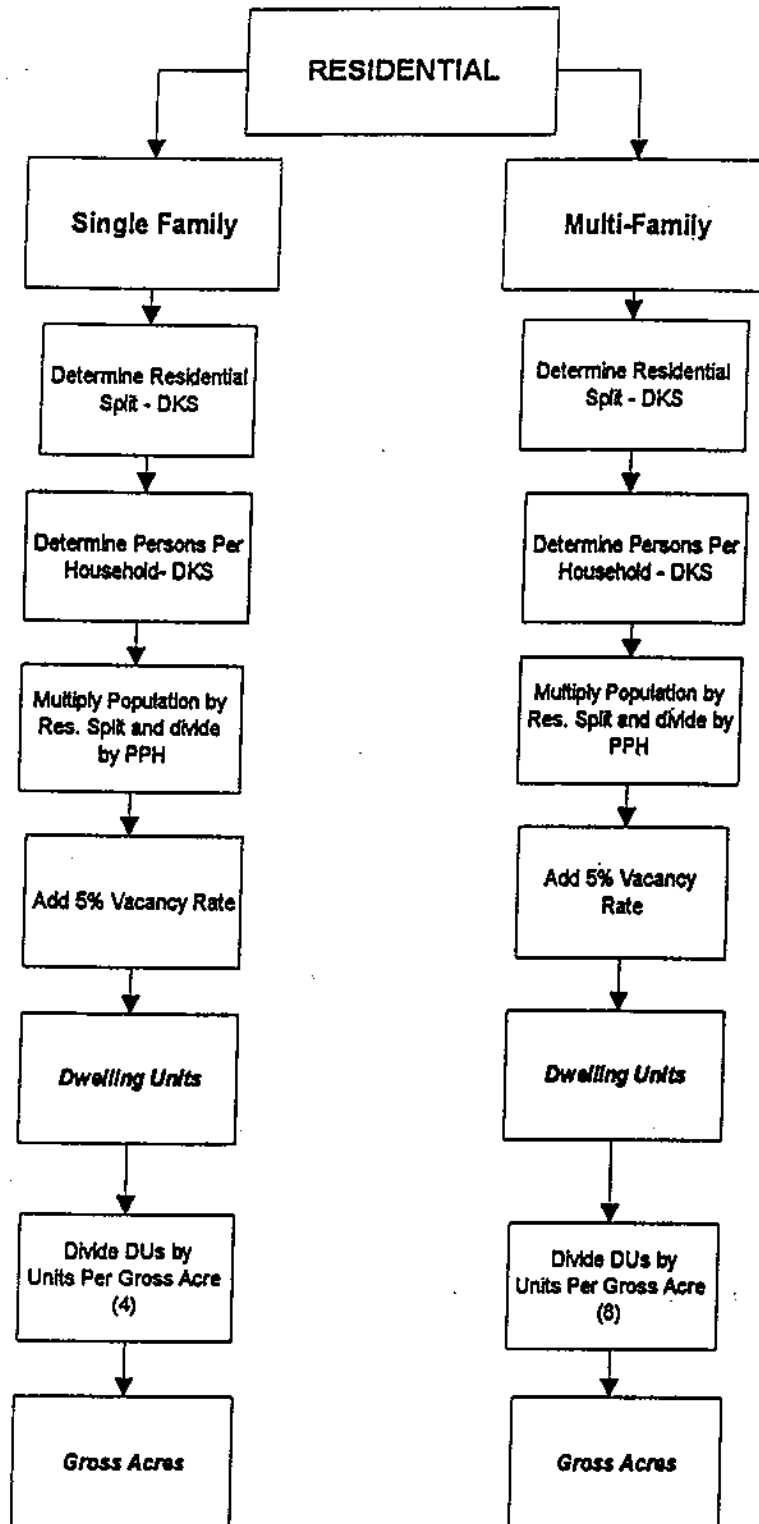
COMPARISON OF HISTORICAL AND PROJECTED  
POPULATION GROWTH RATES

	1996-2020		General Plan Buildout Year
	Preferred Alternative	General Plans	
Clovis	8.4%	2.0%	2030
Coalinga	3.4%	1.2%	2015
Firebaugh	5.7%	1.2%	2011
Fowler	9.2%	1.2%	1995[a]
Fresno	4.1%	1.8%	2020
Huron	5.3%	1.7%	2000[a]
Kerman	6.9%	1.3%	2013
Kingsburg	4.1%	1.0%	2012
Mendota	3.9%	1.3%	2010
Orange Cove	4.4%	1.0%	1997[a]
Parlier	4.0%	1.1%	2005
Reedley	5.0%	1.2%	2012
Sanger	4.4%	0.9%	2000[a]
San Joaquin	8.3%	2.2%	2014
Selma	6.9%	1.2%	2018
Unincorp. County	1.6%	0.8%	
TOTAL	2.4%	1.6%	

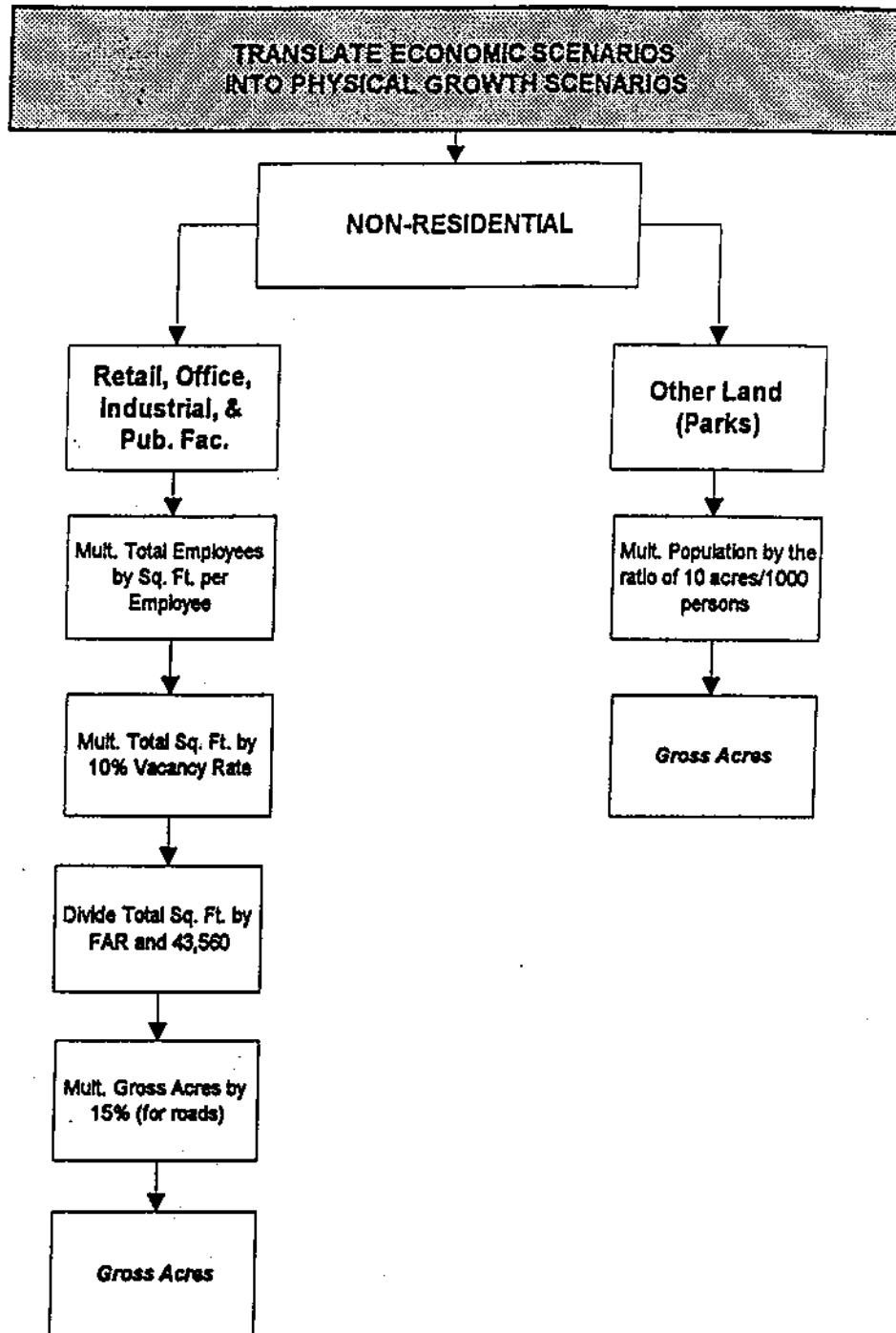
Notes: [a] 1996 population exceeded general plan buildout figure. Growth rate reflects 1990-1996 historical experience.

## EXHIBIT 21

### TRANSLATE ECONOMIC SCENARIOS INTO PHYSICAL GROWTH SCENARIOS



## EXHIBIT 22



**EXHIBIT 23**

**PREFERRED GROWTH SCENARIO  
ASSUMPTIONS AND MULTIPLIERS**

**Residential Development/Land Demand**

Average House Size: Varies by city and geographic area; based on Council of Fresno County Governments projections

Single Family/Multi-family Split: Varies by city and geographic area; based on Council of Fresno County Governments projections

Vacancy Rate: Assumed average 5%

Density: Assumed 4 units per gross acreage for single family and 8 units per acre for multi-family

**Non-Residential Development/Land Demand**

**Employee Density and Floor Area Ratios**

Retail: 550 square feet/employee, .25 floor area ratio

Office/Professional: 300 square feet/employee, .25 floor area ratio  
300 square feet/employee, .50 floor area ratio  
(for the Fresno and Clovis area)

Industrial: 1,000 square feet/employee, .35 floor area ratio

Public/Institutional: 300 square feet/employee, .25 floor area

Vacancy Rate: Assumed average 10%

Conversion of Net Acreage to Gross Acreage: Add 15%

**Other Land Development/Land Demand**

Parks, Other Open Space, Miscellaneous Land Uses: 10 acres per 1,000 population

EXHIBIT 24

GEOGRAPHIC ALLOCATION OF POPULATION AND HOUSING  
Year 2020 Total

Residential

	Population	SF HH	SF DU	MF HH	MF DU	Gross Acres SF	Gross Acres MF
FRESNO COUNTY TOTAL	1,113,785	250,656	263,191	89,225	93,685	65,802	11,709
EAST VALLEY TOTAL	1,035,397	236,977	248,826	83,387	87,556	62,209	10,944
Clovis	111,534	21,835	22,927	15,173	15,932	5,732	1,992
Fowler	7,142	1,690	1,775	594	624	444	78
Fresno	675,981	161,975	170,074	48,382	50,801	42,519	6,350
Kerman	11,015	2,406	2,526	845	887	632	111
Kingsburg	11,562	2,496	2,621	1,807	1,897	655	237
Orange Cove	9,150	1,682	1,766	421	442	442	55
Parlier	12,892	2,276	2,390	719	755	598	94
Reedley	27,715	5,723	6,009	2,571	2,700	1,502	338
San Joaquin	6,291	945	992	445	467	248	58
Sanger	26,880	5,222	5,483	2,346	2,463	1,371	308
Selma	29,038	6,186	6,495	1,007	1,057	1,624	132
Unincorporated East Valley	106,197	24,541	25,768	9,077	9,531	6,442	1,191
SIERRA FOOTHILLS (county)	13,938	3,699	3,884	925	971	971	121
SIERRA NEVADA MTNS. (county)	6,711	1,272	1,336	261	274	334	34
WEST VALLEY TOTAL	57,440	8,649	9,083	4,604	4,834	2,272	604
Coalinga	13,042	1,990	2,090	628	659	523	82
Firebaugh	7,757	1,373	1,442	739	776	361	97
Huron	9,456	1,134	1,191	1,134	1,191	298	149
Mendota	11,838	1,631	1,713	917	963	428	120
Unincorporated West Valley	15,347	2,521	2,647	1,186	1,245	662	156
COAST RANGE FOOTHILLS	299	59	62	48	50	16	6

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## EXHIBIT 25

GEOGRAPHIC ALLOCATION OF POPULATION AND HOUSING  
1996 - 2020 Increment

*Residential*

	Population	SF HH	SF DU	MF HH	MF DU	Gross Acres SF	Gross Acres MF
FRESNO COUNTY TOTAL	344,085	77,735	81,621	27,865	29,258	20,410	3,660
EAST VALLEY TOTAL	325,592	74,698	78,433	26,401	27,722	19,612	3,467
Clovis	42,274	8,276	8,690	5,751	6,039	2,173	755
Fowler	1,795	425	446	149	156	112	20
Fresno	230,782	55,299	58,064	16,518	17,344	14,516	2,168
Kerman	3,006	657	690	231	243	173	30
Kingsburg	2,519	544	571	394	414	143	52
Orange Cove	1,964	361	379	90	95	95	12
Parlier	2,925	516	542	163	171	136	21
Reedley	6,787	1,402	1,472	630	662	368	83
San Joaquin	2,573	387	406	182	191	102	24
Sanger	5,304	1,030	1,082	463	486	271	61
Selma	7,172	1,528	1,604	249	261	401	33
Unincorporated East Valley	18,493	4,273	4,487	1,581	1,660	1,122	208
SIERRA FOOTHILLS (county)	2,211	587	616	147	154	154	19
SIERRA NEVADA MTNS. (county)	565	107	112	22	23	28	3
WEST VALLEY TOTAL	15,692	2,338	2,455	1,291	1,355	615	170
Coalinga	3,183	486	510	153	161	128	20
Firebaugh	1,905	337	354	182	191	89	24
Huron	3,189	382	401	382	401	100	50
Mendota	3,211	442	464	249	261	116	33
Unincorporated West Valley	4,204	691	726	325	341	182	43
COAST RANGE FOOTHILLS	25	5	5	4	4	1	1

## EXHIBIT 26

## GEOGRAPHIC ALLOCATION OF EMPLOYMENT

Year 2020

## Non-Residential

	RETAIL			OFFICE		
	Tot. Populatio	Employee s	Total Sq Ft. (inc. vac.)	Net Acreage	Gross Acreage	
FRESNO C	1,113,785	602,020	85,983,810	7,896	9,078	1,964
EAST VAL	1,035,397	562,658	82,070,065	7,536	8,665	1,939
Clovis	111,534	63,017	8,665,415	796	915	288
Fowler	7,142	3,473	355,135	33	38	7
Fresno	675,981	381,989	53,834,000	5,438	6,254	1,526
Kerman	11,015	4,165	479,050	48	55	6
Kingsburg	11,562	5,746	736,450	74	85	9
Orange Cov	9,150	3,526	305,250	31	36	3
Parlier	12,892	5,075	416,900	42	48	7
Reedley	27,715	12,535	1,745,700	176	202	20
San Joaquin	6,291	1,629	271,700	27	31	2
Sanger	26,880	11,986	1,340,350	135	155	17
Selma	29,038	10,801	1,797,400	182	209	14
Unincorpora	106,197	58,716	5,481,850	554	637	40
SIERRA FO	13,938	3,430	483,450	49	56	0
SIERRA NE	6,711	1,024	404,800	41	47	0
WEST VAL	57,440	34,870	2,655,400	269	309	0
Coalinga	13,042	6,242	639,100	65	75	21
Firebaugh	7,757	3,952	312,400	32	37	6
Huron	9,456	4,328	347,050	35	40	2
Mendota	11,838	4,661	408,650	41	47	2
Unincorpora	15,347	15,687	948,200	96	110	5
COAST RA	299	38	14,300	1	1	6
			15,730	1	1	0
			2,700	9	2,970	0

## EXHIBIT 26 cont'd

## GEOGRAPHIC ALLOCATION OF EMPLOYMENT

Year 2020

## Non-Residential

	INDUSTRIAL					PUBLIC/INSTITUTIONAL					OTHER LAND	
	Employee s	Gross Floor Area	Total Sq Ft. (inc. vac.)	Net Acreage	Gross Acreage	Employee s	Gross Floor Area	Total Sq Ft. (inc. vac.)	Net Acreage	Gross Acreage	Gross Acres	Total Gross Acres
FRESNO C	153,253	153,253,000	168,578,300	11,056	12,716	92,070	27,621,000	30,383,100	2,790	3,209	11,137	38,104
EAST VAL	143,991	143,991,000	158,390,100	10,389	11,948	87,989	26,396,700	29,036,370	2,666	3,065	10,354	35,971
Clovis	17,349	17,349,000	19,083,900	1,252	1,440	11,317	3,395,100	3,734,610	343	394	1,115	4,152
Fowler	1,179	1,179,000	1,296,900	85	98	443	132,900	146,190	13	15	71	229
Fresno	105,216	105,216,000	115,737,600	7,591	8,730	62,527	18,758,100	20,633,910	1,895	2,179	6,760	25,449
Kerman	746	746,000	820,600	54	62	837	251,100	276,210	25	29	110	262
Kingsburg	2,287	2,287,000	2,515,700	165	190	736	220,800	242,880	22	25	116	425
Orange Co	2,098	2,098,000	2,307,800	151	174	395	118,500	130,350	12	14	92	319
Parlier	2,505	2,505,000	2,755,500	181	208	754	226,200	248,820	23	26	129	418
Reedley	2,261	2,261,000	2,487,100	163	187	1,894	568,200	625,020	57	66	277	752
San Joaqui	459	459,000	504,900	33	38	417	125,100	137,610	13	15	63	149
Sanger	4,846	4,846,000	5,330,600	350	403	1,763	528,900	581,790	53	61	269	905
Selma	3,988	3,988,000	4,386,800	288	331	1,377	413,100	454,410	42	48	290	892
Unincorpor	1,057	1,057,000	1,162,700	76	87	5,529	1,658,700	1,824,570	168	193	1,062	2,019
SIERRA F	115	115,000	126,500	8	9	565	169,500	186,450	17	20	139	227
SIERRA N	6	6,000	6,600	0	0	223	66,900	73,590	7	8	67	123
WEST VAL	9,140	9,140,000	10,054,000	659	759	3,290	987,000	1,085,700	100	116	574	1,779
Coalinga	3,211	3,211,000	3,532,100	232	267	985	295,500	325,050	30	35	130	513
Firebaugh	2,014	2,014,000	2,215,400	145	167	563	168,900	185,790	17	20	78	304
Huron	1,832	1,832,000	2,015,200	132	152	452	135,600	149,160	14	16	95	305
Mendota	1,664	1,664,000	1,830,400	120	138	561	168,300	185,130	17	20	118	328
Unincorpor	419	419,000	460,900	30	35	729	218,700	240,570	22	25	153	329
COAST RA	1	1,000	1,100	0	0	3	900	990	0	0	3	4

**GEOGRAPHIC ALLOCATION OF EMPLOYMENT**  
**1996 - 2020 Growth Increment**  
*Non-Residential*

Non-Residential												
RETAIL							OFFICE					
Population		Tot. Employ.	Employees	Gross Floor Area	Total Sq Ft. (inc. vac.)	Net Acreage	Gross Acreage	Employees	Gross Floor Area	Total Sq Ft. (inc. vac.)	Net Acreage	Gross Acreage
FRESNO C	344,085	231,241	43,905	24,147,750	26,562,525	2,442	2,808	83,308	24,992,483	27,491,731	1,263	1,449
EAST VAL	325,592	219,660	41,546	22,850,300	25,135,330	2,309	2,656	82,660	24,797,886	27,277,674	1,253	1,439
Clovis	42,274	28,779	5,394	2,966,700	3,263,370	300	345	13,587	4,076,100	4,483,710	206	237
Fowler	1,795	1,191	229	125,950	138,545	13	15	209	62,793	69,072	3	3
Fresno	230,782	159,995	29,448	16,196,400	17,816,040	1,636	1,881	66,782	20,034,600	22,038,060	1,012	1,164
Kerman	3,006	1,466	384	211,200	232,320	21	24	180	54,000	59,400	3	3
Kingsburg	2,519	1,610	321	176,550	194,205	18	21	190	57,000	62,700	3	3
Orange Co	1,964	1,209	251	138,050	151,855	14	16	63	18,900	20,790	1	1
Parlier	2,925	1,782	373	205,150	225,665	21	24	209	62,793	69,072	3	3
Reedley	6,787	3,672	866	476,300	523,930	48	55	402	120,600	132,660	6	7
San Joaqui	2,573	831	328	180,400	198,440	18	21	84	25,200	27,720	1	1
Sanger	5,304	3,713	677	372,350	409,585	38	44	368	110,400	121,440	6	7
Selma	7,172	3,662	915	503,250	553,575	51	59	391	117,300	129,030	6	7
Unincorporated	18,493	11,750	2,360	1,298,000	1,427,800	131	151	194	58,200	64,020	3	3
SIERRA F	2,211	1,196	282	155,100	170,610	16	18	167	50,100	55,110	3	3
SIERRA N	565	119	72	39,600	43,560	4	5	0	0	0	0	0
WEST VA	15,692	10,260	2,002	1,101,100	1,211,210	113	129	481	144,497	158,947	7	7
Coalinga	3,183	1,977	406	223,300	245,630	23	26	105	31,397	34,537	2	2
Firebaugh	1,905	1,326	243	133,650	147,015	14	16	81	24,300	26,730	1	1
Huron	3,189	1,844	407	223,850	246,235	23	26	84	25,200	27,720	1	1
Mendota	3,211	1,685	410	225,500	248,050	23	26	159	47,700	52,470	2	2
Unincorporated	4,204	3,427	536	294,800	324,280	30	35	53	15,900	17,490	1	1
COAST R	25	5	3	1,650	1,815	0	0	0	0	0	0	0

## EXHIBIT 27 cont'd

## GEOGRAPHIC ALLOCATION OF EMPLOYMENT

1996 - 2020 Growth Increment

Non-Residential

	INDUSTRIAL					PUBLIC/INSTITUTIONAL					OTHER LAND	
	Employees	Gross Floor Area	Total Sq Ft. (inc. vac.)	Net Acreage	Gross Acreage	Employees	Gross Floor Area	Total Sq Ft. (inc. vac.)	Net Acreage	Gross Acreage	Gross Acres	Total Gross Acres
FRESNO C	59,975	59,975,000	65,972,500	4,329	4,977	28,443	8,532,600	9,385,860	861	992	3,441	13,667
EAST VAL	56,061	56,060,000	61,666,000	4,046	4,651	26,914	8,073,900	8,881,290	814	938	3,256	12,940
Clovis	6,043	6,043,000	6,647,300	436	501	3,494	1,048,200	1,153,020	106	122	423	1,628
Fowler	480	480,000	528,000	35	40	148	44,400	48,840	4	5	18	81
Fresno	40,937	40,937,000	45,030,700	2,954	3,397	19,077	5,723,100	6,295,410	578	665	2,308	9,415
Kerman	466	466,000	512,600	34	39	248	74,400	81,840	8	9	30	105
Kingsburg	776	776,000	853,600	56	64	208	62,400	68,640	6	7	25	120
Orange Co	699	699,000	768,900	50	58	162	48,600	53,460	5	6	20	101
Partier	873	873,000	960,300	63	72	242	72,600	79,860	7	8	29	136
Reedley	1,142	1,142,000	1,256,200	82	94	561	168,300	185,130	17	20	68	244
San Joaqui	188	188,000	206,800	14	16	213	63,900	70,290	6	7	26	71
Sanger	1,954	1,954,000	2,149,400	141	162	438	131,400	144,540	13	15	53	281
Selma	1,563	1,563,000	1,719,300	113	130	593	177,900	195,690	18	21	72	289
Unincorporated	939	939,000	1,032,900	68	78	1,529	458,700	504,570	46	53	185	470
SIERRA F	110	110,000	121,000	8	9	183	54,900	60,390	6	7	22	59
SIERRA N	0	0	0	0	0	47	14,100	15,510	1	1	6	12
WEST VAL	3,804	3,805,000	4,185,500	275	317	1,297	389,100	428,010	40	46	157	656
Coalinga	1,113	1,113,000	1,224,300	80	92	263	78,900	86,790	8	9	32	161
Firebaugh	746	746,000	820,600	54	62	157	47,100	51,810	5	6	19	104
Huron	899	899,000	988,900	65	75	264	79,200	87,120	8	9	32	143
Mendota	638	638,000	701,800	46	53	265	79,500	87,450	8	9	32	122
Unincorporated	409	409,000	449,900	30	35	348	104,400	114,840	11	13	42	126
COAST RA	0	0	0	0	0	2	600	660	0	0	0	0

**EXHIBIT 28**

**LAND DEMAND SUMMARY  
1996 - 2020 Growth Increment**

	Residential Gross Acreage	Non-Residential Gross Acreage	Total Gross Acreage
<b>FRESNO COUNTY TOTAL</b>	24,070	13,667	37,737
<b>EAST VALLEY TOTAL</b>	23,079	12,940	36,019
Clovis	2,928	1,628	4,556
Fowler	132	81	213
Fresno	16,684	9,415	26,099
Kerman	203	105	308
Kingsburg	195	120	315
Orange Cove	107	101	208
Parlier	157	136	293
Reedley	451	244	695
San Joaquin	126	71	197
Sanger	332	281	613
Selma	434	289	723
Unincorporated East Valley	1,330	470	1,800
<b>SIERRA FOOTHILLS (county)</b>	173	59	232
<b>SIERRA NEVADA MTNS. (county)</b>	31	12	43
<b>WEST VALLEY TOTAL</b>	785	656	1,441
Coalinga	148	161	309
Firebaugh	113	104	217
Huron	150	143	293
Mendota	149	122	271
Unincorporated West Valley	225	126	351
<b>COAST RANGE FOOTHILLS</b>	2	0	2

# EXHIBIT 29

## LAND DEMAND AND AVAILABILITY FOR CITIES WITHIN FRESNO COUNTY Total Gross Acres - Residential and Non-Residential Land Demand

City	1996 Acreage in SOI	1996 Acreage in City Limits	1996 Unincorporated Acreage in SOI <sup>1</sup>	Land Demand Acreage <sup>2</sup>	Difference <sup>3</sup>
Coalinga	5,248	2,624	2,624	309	2,315
Clovis	14,592	9,856	4,736	4,556	180
Firebaugh	3,200	1,984	1,216	217	999
Fowler	4,544	1,216	3,328	213	3,115
Fresno	90,880	66,752	24,128	26,099	(1,971)
Huron	1,344	1,024	320	293	27
Kerman	3,072	1,216	1,856	308	1,548
Kingsburg	3,648	1,472	2,176	315	1,861
Mendota	2,240	1,344	896	271	625
Orange Cove	1,664	1,024	640	208	432
Parlier	1,664	960	704	293	411
Reedley	4,672	2,752	1,920	695	1,225
San Joaquin	960	640	320	197	123
Sanger	4,672	2,880	1,792	613	1,179
Selma	6,528	2,496	4,032	723	3,309

1. This represents the total amount of unincorporated land outside city limits but within the city sphere of influence.
2. Taken from Exhibit 28.
3. The "Difference" column shows the difference between available land and land demand. The negative value (in parenthesis) shows land demand that exceeds available land. This does not reflect potential infill development within city limits or existing development in the unincorporated sphere of influence.

Sources: Consultant Team; Fresno LAFCO